

#### REMARKS

Claims 12 and 15-17 are pending in this application. It is respectfully submitted that the Office Action Summary incorrectly lists Claim 13 as an active claim, since Claims 1-11, 13-14, and 18-37 were cancelled by preliminary amendment filed November 9, 2001. Claims 13 was rejected under 35 U.S.C. Sections 101 and 112, second paragraph; in view of the cancellation of this claim, these rejections are respectfully deemed moot and should be withdrawn. Claims 15-17 were rejected under 35 U.S.C. § 112, second paragraph. Claim 12 is allowed.

Applicants respectfully request that the Examiner reconsider the patentability of the claimed inventions as set forth in the amended claims herein. The amendments to the claims to obviate the Section 112, second paragraph rejections as set forth in the Office Action do not change the scope of the claims. The amendments to the specification made to obviate the Section 112, second paragraph rejection have been made to make reference to "SEQ ID NO: 8" which has been added to the supplemental Sequence Listing filed herewith. No new matter is added by the present amendments.

The present amendments to the claims are believed to put all the active pending claims in proper condition for allowance.

### Informalities

A copy of the oath and declaration from parent application Serial No. 09/598,218 that was filed in the present application on November 9, 2001 is filed herewith.

The priority data for this application has been updated as requested and presented in the herein amendment.

### Section 101 Double Patenting

Claim 13 was rejected for double patenting under 35 U.S.C. 101. However since Claim 13 was cancelled from this application in a preliminary amendment when the present divisional application was filed, it is respectfully submitted that the rejection of Claim 13 under Section 101 is moot, and should be withdrawn.

### Section 112, Paragraph 2 Rejection

Claims 13 and 15-17 were rejected under 35 U.S.C. §112, second paragraph for indefiniteness for failure to refer to the amino acid sequence of the beta chain of human hemoglobin. Applicant notes that Claim 13 is cancelled and this rejection as to this claim should be withdrawn. All the claims as amended herein now directly or indirectly refer to SEQ ID NO: 8, the amino acid sequence of the beta chain for human hemoglobin, which is provided herewith in a supplemental Sequence Listing in paper and computer readable form as requested by the Examiner. Support for this sequence is found in U.S. Patent No. 5,843,888 and Hernan, R.A., et al., Biochemistry 31:8619 (1992). The

disclosures of both references have been incorporated into the present specification by reference and were included in applicant's Information Disclosure Statement filed in the present application on September 9, 2003 (filed on December 22, 2000 in the parent application). Therefore no new matter has been added by the supplemental Sequence Listing in the present amendment. It is respectfully submitted that the rejection under 35 U.S.C. §112, second paragraph is now obviated and should be withdrawn.

#### Supplementary Sequence Listing

SEQ ID NO: 8, submitted herewith in a supplemental Sequence Listing at the Examiner's request in computer readable form and paper form, is the amino acid sequence of the beta chain for human hemoglobin as discussed above.

The undersigned hereby states that the computer readable form of the supplemental sequence listing submitted herewith is the same as the (paper) "Sequence Listing" to which it is indicated to relate. This submission contains no new matter.


#### CONCLUSION

In view of the above amendments and discussion, it is submitted that the claims are in condition for allowance, and reconsideration of the rejections is requested. Allowance of Claims 12, and 15-17 at an early date is respectfully solicited.

If the Examiner notes any further matters which she believes would be expedited by a telephonic interview, she is

requested to contact Mary-Elizabeth Buckles at the telephone  
number listed below.

Respectfully submitted,



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